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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,223	01/16/2004	Chih-Wei Kuo	3074/140	5730

22429 7590 10/05/2006

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EXAMINER

COPPINS, JANET L

ART UNIT	PAPER NUMBER
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1626

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/758,223	Applicant(s) KUO ET AL	
	Examiner Janet L. Coppins	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-18 pending in the instant application.

Information Disclosure Statement

1. Applicants' Information Disclosure Statements (IDS) submitted January 16, 2004 and May 5, 2004 have been considered by the Examiner. Please refer to the signed copies of Applicants' PTO-1449 forms submitted herewith.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Deroose et al.

Applicants claim the following process:

A method of synthesizing bicyclic thiazolidine hydantoin, wherein L-(+)-cysteine is reacted with an aldehyde and isocyanate in the presence of a catalyst additive (molecular sieves).

Determination of the scope and content of prior art

(a) Deroose et al teach a process wherein L-cysteine is reacted with an aldehyde and then further reacted with an isocyanate to produce bicyclic thiazolidine hydantoin.

Ascertainment of the difference between the prior art and the claims

The difference between the prior art process disclosed in Deroose et al and the instant claims is that Deroose et al do not provide a specific example wherein a molecular sieve is used during the synthesis.

Finding of prima facie obviousness- rationale and motivation

However, as disclosed in Deroose et al, L-(+)cysteine can be combined with aldehydes such as benzyl aldehyde, and then mixed with an isocyanate such as benzylisocyanate, to produce chiral bicyclic thiazolidine hydantoin. Regarding the “additive solid molecular sieves,” it is known in the art that molecular sieves have strong adsorptive forces due to their porous structures, and are useful catalysts for increasing the degree of crystallization. Since Deroose et al teach the same environment, i.e. a chiral cysteine compound, an aldehyde, and an isocyanate, one would expect that the product would be the same, a chiral bicyclic thiazolidine hydantoin.

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There is no evidence present to show a surprising or unexpected result of the prior art relative to the scope of the Applicants claims.

Regarding the two step process of Deroose et al, since the instant application is absent any unexpected effects, it would be obvious to combine the multi-step process as taught by Deroose et al to obtain a batch process as instantly claimed, utilizing a known catalyst, to produce the exact same compounds. Please refer to *In re Dillon*, USPQ2d 1337 (1992).

It would have been prima facie obvious to one of ordinary skill in the art at the time of filing the application to modify the process of the Deroose et al reference by adding a catalyst, with the expectation of obtaining the same thiazolidine compound. Therefore, absent a showing of unobvious and superior results, the instant claimed method would have been suggested to one skilled in the art. The Examiner recommends combining claims 1-3 in order to overcome the rejections and differentiate from the prior art process.

Claim Objections

6. Claims 3-18 are objected to as being dependent on rejected base claims.

Conclusion

7. In conclusion, claims 1-18 are pending, claims 1 and 2 are rejected, and claims 3-18 are objected to.

Telephone Inquiry


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L. Coppins whose telephone number is 571.272.0680. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571.272.0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Janet L. Coppins
April 1, 2005



Joseph K. McKane
SPE, Art Unit 1626